Subject Index Volume 47

Abstracts, Annual Meeting of American Society for Clinical Nutrition, Inc., 758

Adenomatous polyps of large bowel, diet and, 312

Adenosine monophosphate, cyclic (cAMP), calcium intake in osteoporosis and, 1022

Adenosine triphosphate (ATP) gain, energy expenditure and, 591 Adipose tissue, carotenoid and tocopherol composition of, 33 Adolescent

growth and maturation, zinc deficiency and (monkey), 1046 obese

energy output and oxygen uptake during walking, 26 protein-sparing modified fast in, potassium, magnesium and calcium balance and, 220

pregnancy in, maternal weight gain and low birthweight infant, 948 Age. See also Geriatric patient

renal vitamin D metabolism in female and (rat), 694

Alcohol intake

adenomatous polyps of large bowel and, 312

coronary heart disease and, 139 energy intake and obesity and, 406

Alcoholism, liver damage and increased body weight in, 235

Aldosterone, response to sodium loading in people on low-Na diet, 502 American Society for Clinical Nutrition, Inc., Annual Meeting

abstracts, 758 program, 747 Amino acids

nomenclature policy, 589

plasma levels, carbohydrate meal and, 433

postprandial, overeating/undereating and, 932

α-Amylase, dietary starch hydrolysis, 1010

Amylopectin starch, glucose and insulin response to, 428

Amylose starch, glucose and insulin response to, 428

Anemia

of copper deficiency, high dietary iron and ascorbic acid and (rat), 96 iron deficiency

growth velocity in, iron supplementation and, 496

in infants, 265

iron supplementation and, 280, 496

Anorexia nervosa

glucagon secretion in, 239

motor activity and weight gain in, 989

Anthropometry

arm muscle and bone area, 929

fat patterning in obese women, 225

Apolipoproteins, in high-density lipoproteins, zinc deficiency and (rat), 120

Ascorbic acid

elevated intake, copper status and (rat), 96

iron absorption and, 270

Athletes, vitamin and mineral status and effects of supplementation, 186, 192

Bacteria, colonic, degradation of pectin, 848

Beans, folate absorption and, 80

Bed rest, fluoride supplementation during, zinc, copper and nitrogen balance and, 509

BIA. See Bioelectric impedance analysis Biliary lipids, olive oil-enriched diet and, 960

Biliopancreatic secretion, inhibition of, jejunal caloric load and, 400

Bioelectric impedance analysis (BIA)

body fat, 789 lean body mass, 7

Birthweight

correlation with resting metabolic rate during pregnancy, 942 low, and maternal weight gain in adolescent pregnancy, 948

maternal nutrition and, 413

Bleeding time, vitamin E supplementation and, 700

Blood glucose

amylose starch vs amylopectin starch and, 428

dietary fiber and, 852, 859

dietary starch and, 1010

food particle size and, 675

postprandial, overeating/undereating and, 932

systemic ketosis and, in cancer cachexia, 42

after weight loss, 840

Blood pressure body fat patterning and, 836

calcium supplementation and, responders and nonresponders, 1030

diet and, in Australian children, 1052

dietary fats and fatty acids and, 976

sodium loading and, in people consuming low-Na diets, 502 sodium restriction and, in children, 113

Body composition

arm muscle and bone area, anthropometry vs CAT scan, 929

bioelectric impedance analysis, 7, 789

and energy output during walking, 26

fat intake and, during and after exercise (hamster), 175

during pregnancy, 942

repeated weight loss and regain and, 393

TOBEC estimation, validation via direct carcass analysis (swine), 180

Body conductivity. See TOBEC

Body fat

central vs peripheral placement, risk factors and, 836

distribution during growth, relation to health, 551

distribution in obese women

changes accompanying weight reduction, 229

resting and metabolic rate and diet-induced thermogenesis and, 840

patterning in obese women, 225

repeated weight loss and regain and, 393

BIA assessment, 789

during pregnancy, 942

Body fatness. See also Obesity

energy intake and expenditure and smoking and, 668

Abstracts submitted to the 28th Annual Meeting of the AJCN were published on pages 758 through 788 of the April issue of AJCN. Authors and subjects are not indexed here.

Body mass fat-free, TOBEC estimation, 180 lean, BIA estimation of, 7 Body water, total estimation, 1 during pregnancy, 942 TOBEC assessment, 180 Body weight. See also Weight gain; Weight loss increased. See also Obesity and liver damage in alcoholics, 235 Bone mass, parenteral nutrition and, 575 Bone mineralization, zinc deprivation and (monkey), 889 **Book reviews** Eating Habits: Food, Physiology and Learned Behavior, R Boakes, D Popplewell, & M Burton (eds), 345 Early Nutrition and Later Achievement, J Dobbing (ed), 740 Geriatric Nutrition, DA Roe, 345 Home Parenteral Nutrition: A Handbook for Patients, CR Fleming & S Berkner (eds), 554 Nutritional Influences on Illness. A Sourcebook of Clinical Research, MR Werbach (ed), 923 Patient Problems in Clinical Nutrition: A Manual, ML Wahlqvist & JS Vobecky (eds), 923 Seafood and Health, JA Nettleton, 740 Bovine serum albumin, iron absorption in human and, 102 Bowel rest, in colitis, 715 Breast cancer, fat intake and, 653 Breath tests, in starch malabsorption, 61 Bulimia, hypothalamic-pituitary-thyroid axis alterations in, 805

Cachexia, in cancer, systemic ketosis and, 42 Calcium absorption assessment of, 262 effects of age and estrogens and (female rat), 694 from milk products, imitation milk and calcium carbonate, 93 psyllium supplementation and, 67 from spinach, 707 bioavailability measurement, 884 in spinach, 707 in osteoporosis, nephrogenous cAMP and, 1022 plasma and milk concentration in lactating Nepalese women and, metabolism, during TPN, sulfur content of infusate and, 128 milk concentration, during lactation, 642, 735 serum ionized, phosphate supplementation and, 1025

blood pressure and, responders and nonresponders, 1030 in osteoporosis, nephrogenous cAMP and, 1022 urinary loss, during parenteral nutrition, 515 Calcium carbonate, calcium absorption from, 93 Caloric intake, obesity and, 406 Caloric restriction resistance weight training during, lean body weight and, 19 work efficiency and, 15 Caloric utilization, in anorectic, 989 Calorimetry, indirect energy expenditure, net carbohydrate utilization and net fat oxidation and synthesis, composition of fuels and, 608 theory and validity during net lipid synthesis, 591 Cancer breast. See Breast cancer cachexia, ketogenic diet in, 42 diet and, epidemiologic studies, methodologic considerations, 1068 Carbohydrate(s) cholesterol-lowering effect, 965 dietary, 1078 metabolism, fructose and, 83 utilization of, indirect calorimetry, 608

supplementation

Carbohydrate meals, plasma tryptophan: large neutral amino acid ratio Carbon dioxide, respiratory, isotope fractionation factors and measurement of 2H and 18O dilution spaces from, 1 Carotenoids in adipose tissue, 33 plasma levels, ultraviolet phototherapy and, 879 CAT scan. See Computed tomography Cellulose concentration, analysis in selected foods, 440 Ceruloplasmin in chronic renal failure, 896 plasma level, high dietary iron and ascorbic acid and (rat), 96 Cholestasis, vitamin A deficiency and, in children, treatment, 690 Cholesterol absorption rate and lipoprotein distribution of, dietary fiber and, 201 dietary, plasma cholesterol and, 965 high density lipoprotein, zinc supplementation and, 970 plasma level dietary saturated fatty acids and, 822 monounsaturated fatty acid diet and, 965 psyllium supplementation and, 67 body fat patterning and, 836 after weight loss, 840 Cholesterol saturation index of bile, olive oil-enriched diet and, 960 Chylomicrons, dietary fiber and, 201 Cigarette smoking body fatness and, 668 energy intake and obesity and, 406 Coagulation, vitamin K deficiency and, 475 Colitis, experimental, pectin-supplemented enteral feeding in, 715 Colon, bacterial degradation of pectin in, 848 Colon cancer, adenomatous polyps and, 312 Computed tomography (CT scan), arm muscle and bone area, 929 Copper dietary intake and status, in lactating Nepalese women and their inplasma level, in chronic renal failure, 896 Copper balance, bed rest and fluoride supplementation and, 509 Copper deficiency, growth and, 710 Copper status high dietary iron and ascorbic acid and (rat), 96 in lactating Nepalese women and their infants, 729 Cornstarch, in nesidioblastosis, 1001 Coronary heart disease alcohol consumption and dietary intake and, 139 mortality trends, food consumption and, 1060 Cystic fibrosis, protein metabolism in, pulmonary infection and, 214 Cytokinetics, ileum, dietary fiber and (rat), 1004

Dairy products, calcium absorption from, 93 Depression, in submariners, 463 Deuterium (2H), isotope fractionation factor of, in urine, saliva, respiratory water vapor and breath CO₂, 1
Deuterium (²H) dilution test, human milk intake by infant, 815 Diabetes mellitus insulin-dependent, platelet function in, vitamin E therapy and, 256 noninsulin-dependent, high-fiber diet in, 852 Dialysis, plasma copper and ceruloplasmin levels in patients on, 896 Diarrhea, and growth of infants, 134 adenomatous polyps of large bowel and, 312 blood pressure and, in Australian children, 1052 cancer and, epidemiologic studies, methodologic considerations, 1068 diabetic, 852 food fiber choices for, 243 fish intake, iron status and, 275 high-fiber, adaptation to, 859

iron-fortified, for infants, 108

liquid. See Liquid diet

low-calorie (semistarvation), gastrointestinal and cardiac response to 981

low-fat, high-carbohydrate, during lactation, 810

olive-oil-enriched, serum lipoproteins and biliary cholesterol saturation and, 960

poultry intake, iron status and, 275

protein-sparing modified fast, potassium, magnesium and calcium balance and, 220

renal disease progression and

hyperlipidemia and, 157 phosphate restriction and, 153

protein intake and, 146

saturated fatty acids in, plasma cholesterol response to, 822 sodium-restricted, in children, blood pressure and, 113

vegetarian. See also Vegetarian vitamin B₁₂ status, 89

1,25-Dihydroxycholecalciferol synthesis, effect of age and estrogens on (female rat), 694

Disaccharidases, intestinal

postjejunectomy (rat), 868

after small bowel resection, pectin supplementation and (rat), 448

DLW. See Doubly labeled water technique

Dopamine, urinary, overeating/undereating and, 932

Doubly labeled water (DLW) technique

energy expenditure during changing nutrition, 799

energy expenditure and socioeconomic status in Guatemala, 196

Eating disorders. See Anorexia nervosa; Bulimia

Education

clinical nutrition training programs for physicians, 911

nutritional education for medical/dental students/residents, 534-552

Elemental diet, pectin-supplemented, in colitis (rat), 715

Energy expenditure ATP gain and, 591

body fatness and, 668

during changing nutrition, measurement via doubly labeled water technique, 799

in Guatemalan population, socioeconomic status and, 196

indirect calorimetry, 591

composition of fuels and, 608

Energy intake

body fatness and, 668

familial resemblance, genetic and environmental factors, 629 large fluctuations in, metabolic response to, 932

Energy metabolism, during nasogastric feeding for protein-energy malnutrition, 900

Energy output, during walking, obesity and, 26

Energy utilization, in obese males, 995

Enteral feeding, in colitis (rat), 715

Enteroglucagon, dietary fiber and (rat), 1004

Enzyme(s), lipogenic, fat intake and, during and after exercise (hamster), 175

Enzyme immunoassay, serum transferrin, 37

Epidemiology

diet-cancer link, methodologic considerations for investigating, 1068 trends in coronary heart disease mortality and food consumption in US, 1060

Erythrocyte, potassium and magnesium concentration, protein-sparing modified fast and, 220

Erythrocyte glutathione reductase (EGR), in hypothyroid newborn, 481

Estrogens

in premenopausal women, fat intake and, 653 renal vitamin D metabolism in female and (rat), 694

Ethnicity, serum vitamin A levels in children and, 247

Exercise

effect of fat intake on body composition and hepatic lipogenic enzyme activity and (hamster), 175

oxygen uptake during, caloric restriction and, 15

Exercise training

resistance weight training during caloric restriction, lean body weight and, 19

resting metabolic weight and postprandial thermogenesis and, 793

Fat, body. See Body fat

Fats, dietary

blood pressure and, 976

effect on body composition and hepatic lipogenic enzyme activity after exercise (hamster), 175

hormonal milieu in premenopausal women and, 653

intestinal absorption from liquid diet (rat), 207

metabolism, obesity and, 995

oxidation of, indirect calorimetry, 608

postprandial lipemia and, 825

Fatty acids

absorption and lymphatic transport, dietary fiber and, 201

dietary, blood pressure and, 976

in human milk, 954

maternal diet and, 810

monounsaturated. See also Olive oil

cholesterol-lowering effect, 965

saturated, plasma cholesterol response to, 822

Feces, steroid excretion, potassium supplementation and, 67

Ferritin, serum levels, diet and, 275

Fetus, lung growth and maturation, maternal consumption of fish oil and, 828

Fiber, dietary

analysis in selected foods, 440

for diabetic diet, 243

effect on blood glucose and plasma low-density lipoproteins in noninsulin-dependent diabetes, 852

folate absorption and, 80

intestinal adaptation to, lipid absorption and lymphatic transport and, 201

plasma enteroglucagon and ileal cytokinetics and (rat), 1004 soluble, 440

Fish oil, consumption during pregnancy, fetal lung growth and maturation and, 828

Flavin adenine dinucleotide (FAD), thyroxine and, 481

Fluoride supplementation, during bed rest, zinc, copper and nitrogen balance and, 509

Folate (folic acid)

bioavailability, wheat bran and beans and, 80 intestinal transport following resection (rat), 75

supplementation

for iron deficiency anemia, 280

zinc absorption and, 484
Food intake (consumption)

alcohol consumption and, 139

fructors and 693

fructose and, 683

trends in coronary heart disease mortality and, 1060

Food restriction, refeeding after, body composition and, 393 Fructose, differential effect on food intake and carbohydrate metabolism, 683

Gallbladder motility, olive oil-enriched diet and, 960

Gas chromatography-mass spectrometry, appearance of labeled lysines in human milk proteins, 49

Geriatric patient, nutritional status, dietary intake and biochemical indicators of, 524

Glomerulonephritis, phosphate restriction in, 153

Glomerulosclerosis, focal, hyperlipidemia and, 157

Glucagon secretion, in anorexia nervosa, 239

Glucose. See Blood glucose

Glucose tolerance test, in anorexia nervosa, 239

Glycemic index, application to mixed meals, 53

Growth

copper deficiency and, 710

infection and, 134

iron supplementation and, 496
Gut, response to low-calorie semistarvation diet, 981

dietary intake

supplementation

Iron deficiency

Iron status dietary intake and

elevated, copper status and (rat), 96 iron status of premenopausal women and, 275

for iron deficiency anemia, 280

in premenopausal female, 275

serum transferrin immunoassay, 37 Isotope fractionation, total body water, 1

Ketosis, systemic, and cancer cachexia, 42

Kidney disease, progression of

dietary protein and, 146

hyperlipidemia and, 157 phosphate restriction and, 153

of infants fed iron-fortified beikost, 108

Jejunectomy, in infancy, adaptation to (rat), 868

Jejunum, caloric load, biliopancreatic secretion and, 400

anemia and, See Anemia, iron deficiency

in infant, prevention by milk fortification, 265

in lactating Nepalese women and their breast-fed infants, 729

growth velocity and, in iron deficiency anemia, 496

in lactating Nepalese women and their infants, 729

during pregnancy, milk-based food supplementation and, 413

Heart, response to low-calorie semistarvation diet, 981 Hemodialysis, prealbumin-retinol-binding protein-retinol complex in, 664 Hemoglobin, increased concentration in iron deficiency anemia, iron supplementation and, 280 Heredity, energy intake and, 629 exercise training and, 793 gut, dietary fiber and (rat), 1004 in premenopausal women, fat intake and, 653 Hydrogen breath test, lactase activity of yogurt, 454 Hypothalamic-pituitary-thyroid axis, in bulimia, 805 Hydrostatic densitometry, body composition, 789 Hyperlipidemia, renal disease and, 157 Hypothyroidism, congenital, erythrocyte glutathione reductase activity cytokinetics, dietary fiber and (rat), 1004 epithelial maturation postjejunectomy (infant rat), 868 Immune function, in adolescence, zinc deficiency and, 1046 Impression cytology, in detection of subclinical vitamin A deficiency, 875 Infant(s) birthweight. See Birthweight copper deficiency, growth and, 710 doubly labeled water method for measuring energy expenditure during changing nutrition, 799 growth velocity, infection and, 134 iron deficiency, prevention by milk fortification, 265 iron status, iron-fortified diet and, 108 low-birthweight, total parenteral nutrition in, sulfur content of infusate and sulfoester excretion, 128 Nepalese, breast-fed copper, iron, zinc and selenium intake and status, 729 nutritional and medical status, 722 hypothyroid, erythrocyte glutathione reductase activity in, 481 total parenteral nutrition in, quality of infused energy and nitrogen metabolism, 298 preterm, zinc supplementation and plasma vitamin A, 1017 Infections, in protein-energy malnutrition, thymulin (Zn-FTS) activity and, 305 Insulin activity of, sucrose vs starch diet and (rat), 420 dietary fiber and, 852, 859 plasma level amylose starch vs amylopectin starch and, 428 dietary starch and, 1010 food particle size and, 675 postprandial, overeating/undereating and, 932 response to mixed meals, glycemic index prediction and, 53 Intestine(s) absorption of dietary fat from liquid diet (rat), 207 adaptation to dietary fiber, effect on lipid absorption and lymphatic

Kidney failure, chronic, plasma copper and ceruloplasmin levels in, Laboratory data, SI units, 565 Lactase activity, after small bowel resection, pectin supplementation and (rat), 448 Lactase deficiency, 57 lactose absorption in, after yogurt meal, 454 dietary manipulation during, fatty acid composition of milk and, 810 nutritional and medical status of Nepalese mothers, 722 calcium and magnesium dietary intake and plasma and milk concentration, 735 copper, zinc, iron and selenium dietary intake and status, 729 prostaglandins in milk during, 649 Lactose intolerance (malabsorption), 57 meal, 57 yogurt in, lactose absorption from, 454 Lactulose-hydrogen breath test, in starch malabsorption, 61 and, 19 Legumes, effect on postprandial glucose and insulin, 859 Letters, 161, 336, 553, 922, 1083 Lignin concentration, analysis of certain foods, 440 Linoleic acid, intestinal absorption from liquid diet (rat), 207 Lipemia, postprandial, meal fat content and, 825 Lipids, serum, zinc supplementation and, 970 Lipogenesis, indirect calorimetry, 591, 608 Lipoprotein high-density, zinc deficiency and (rat), 120 low-density, dietary fiber and, 852 serum level, olive oil-enriched diet and, 960 Liquid diet, intestinal absorption of dietary fat from (rat), 207 Liver damage to, in alcoholic, increased body weight and, 235 insulin action, sucrose vs starch diet and (rat), 420 response to low-calorie semistarvation diet, 981

adaptation of, folate transport following (rat), 75 disaccharidase activity after, pectin supplementation and (rat), 448 Iron absorption inhibitors of, 270 nuts and, 270 bioavailability, meat protein and, 487 dietary, absorption of, bovine serum albumin vs beef meat and, 102

transport, 201

Intestine, large. See also Colon

Intestine, small. See also Ileum

resection

adaptation post jejunectomy (infant rat), 868

response to low-calorie semistarvation diet, 981

zinc absorption, folate supplementation and, 484

calcium supplement absorption, 884

adenomatous polyps, diet and, 312

vitamin B₁₂ deficiency in, methylmalonic aciduria in infant and, 89 zinc, calcium and magnesium concentrations in milk during, 642 reduced intolerance symptoms from lactose consumed during a Lean body weight, caloric restriction and resistance weight training biopsy of, to assess zinc status in zinc deprivation (monkey), 1041 vitamin A status, vitamin A analogs for assessment (rat), 458 Lung, growth and maturation in fetus, maternal consumption of fish oil and, 828

Lymph, cholesterol in, dietary fiber and, 201 Lysine, isotope-labeled, appearance in human milk proteins, 49

dietary intake, plasma and milk concentration in lactating Nepalese women, 735

erythrocyte concentration, protein-sparing modified fast and, 220 milk concentration, during lactation, 642

plasma level, in premenstrual syndrome, 636 urinary loss, during parenteral nutrition, 515

Maize, particle size, plasma glucose and insulin responses and, 675 Malnutrition

copper deficiency and, growth in, 710

nutritional rehabilitation, zinc supplementation, 1036

protein-energy. See Protein-energy malnutrition in surgical patient

clinical outcome and, 352

total parenteral nutrition for, 357, 366

Maltase activity, after small bowel resection, pectin supplementation and (rat), 448

Meat factor, in iron absorption, 487

Meat food, dietary iron absorption and, 102

Metabolic rate

postprandial. See Thermic effect of a meal

resting exercise training and, 793

in obese females before and after weight loss, 840 during pregnancy, 942

Metallothionein, in zinc-deficient monkey, 1041

Methanol, pectin degradation by colonic bacteria and, 848 Methylmalonic aciduria, vitamin B₁₂ deficiency and, 89

Milk, cow's

calcium absorption from, 93

iron-fortified, for prevention of iron deficiency in infants, 265

Milk, human

calcium concentration, 642, 735

fatty acid composition, alteration via manipulation of maternal diet. 816

intake by infant, dose-to-mother 2H-dilution method vs test-weighing technique, 815

magnesium concentration, 642, 735

mature, fatty acid composition, 954

from Nepalese women, calcium and magnesium concentration, 735

prostaglandin concentration, 649

protein synthesis, isotope study, 49

zinc, calcium and magnesium concentration during lactation, 642 Minerals

in human milk during lactation, 642

supplementation, in athletes, 186

ergogenic effects, 186, 192

toxic effects, 186

Nasoenteric feeding, continuous, bioenergetic and metabolic response.

National Health and Examination Survey, 318, 320

National Nutrition Monitoring System, 318, 333

National Center for Health Statistics in, 320

US Department of Agriculture in, 329

Nesidioblastosis, cornstarch therapy, 1001

Nitrogen balance

bed rest and fluoride supplementation and, 509

in newborn on total parenteral nutrition, 298 Norepinephrine, urinary, overeating/undereating and, 932

Nutrition. See also Diet

in cystic fibrosis, pulmonary infection and, 214

Nutritional assessment, elderly population, 524

Nutritional rehabilitation, zinc supplementation in, 1036

Nutritional status

breast-fed Nepalese infants, 722, 729

in elderly, dietary intake and biochemical indicators, 524

in lactating Nepalese women, 722

calcium and magnesium dietary intake and plasma and milk concentrations, 735

copper, iron, zinc and selenium intake and status, 729

Nutritional studies, energy expenditure during changing nutrition, DLW technique, 799

Nutritional support. See Parenteral nutrition, total

Nutritional survey

diet-cancer link, methodologic considerations for investigating, 1068 ethnic and racial differences in serum vitamin A levels in children, 247

trends in coronary heart disease mortality and food consumption in the US, 1060

vitamin E deficiency in phrynoderma, 253

Nuts, iron absorption and, 270

Oats, particle size, plasma glucose and insulin response and, 675 Obesity

in adolescents

oxygen uptake and energy output during walking, 26 protein-sparing modified fast in, potassium, magnesium and calcium balance and, 220

arm muscle and bone area, anthropometry vs CAT scan, 929

body composition in, effect of repeated weight loss and regain, 393 body fat distribution in, resting metabolic rate and diet-induced ther-

mogenesis and, 840

caloric intake and physical activity and, 406 dietary fat:carbohydrate ratio and, 995

fat patterning in, 225

fructose preload effect on carbohydrate metabolism and food intake, 683

sucrose vs starch diet and (rat), 420

Olive oil, serum lipoproteins and biliary cholesterol saturation and, 960 Oral calcium load test, measurement of intestinal calcium absorption,

Osteoporosis, calcium intake in, nephrogenous cAMP and, 1022 Overeating, metabolic response to, 932 Oxygen-18 (¹⁸O), isotope fractionation factor of, in urine, saliva, respi-

ratory water and breath CO2, 1

Oxygen uptake

during exercise, caloric restriction and, 15

during walking, in obese adolescents, 26

Pancreas, response to low-calorie semistarvation diet, 981 Parathyroid gland, estrogen effect on vitamin D metabolism and (rat), 694

Parathyroid hormone, serum level, phosphate supplementation and, 1025

Parenteral nutrition

mineral loss during, 575

total

in colitis (rat), 715

cost-effectiveness and cost-benefit, 382

in low-birthweight infant, sulfur content of infusate and sulfoester excretion, 128

in newborn, quality of infused energy and nitrogen metabolism, 298

perioperative, in malnourished surgical patient, 351

clinical trials, 357, 366

cost-effectiveness and cost-benefit, 382

preoperative, for malnourished surgical patient, 352 clinical trials, 357, 366

Parma Symposium, current controversies in nutrition, dietary carbohydrate, 1078

Pectin

dietary, degradation by colonic bacteria, 848

supplementation

disaccharidase activity after small bowel resection and (rat), 448 in enteral feeding for colitis (rat), 715

Pediatric patient. See also Infants

cholestasis and vitamin A deficiency in, treatment, 690

diet and blood pressure in, 1052

Pediatric patient (continued)

iron deficiency anemia, iron supplementation and growth velocity in. 496

nesidioblastosis, cornstarch therapy, 1001

normotensive, blood pressure response to sodium restriction, 113 Phosphate

dietary restriction, renal function and, 153

supplementation, serum ionized calcium and parathyroid hormone and, 1025

Phospholipids, in fetal lung surfactant, maternal consumption of fish oil and, 828

Phrynoderma, vitamin E deficiency in, 253

Phylloquinone, dietary restriction, vitamin K deficiency and, 475 Physical activity

in anorectic, weight gain and, 989 and energy intake in obesity, 406

Plasma, isotope fractionation factors and measurement of ²H and ¹⁸O dilution spaces from, 1

aggregation, vitamin E supplementation and, 700

function, in insulin-dependent diabetes, vitamin E therapy and, 256 tocopherols in, vitamin E status and, 470

Potassium

erythrocyte, protein-sparing modified fast and, 220

total body

during pregnancy, 942

protein-sparing modified fast and, 220

Prealbumin, serum, in hemodialysis patient, 664

in adolescent, maternal weight gain and low birthweight infant, 948 dietary fish oil during, fetal lung growth and maturation and, 828 milk-based food supplementation during, fetal growth and, 413 resting metabolic rate and body composition during, 942

Premenstrual syndrome, vitamin and trace element status in, 636 Prolactin, in premenopausal women, fat intake and, 653

Prostacyclin generation, vitamin E supplementation and, 700

Prostaglandins, in human milk, 649

Protein

dietary

iron absorption and, 102

renal function and renal disease progression and, 146

in meat, iron absorption and, 487

metabolism, in cystic fibrosis, pulmonary infection and, 214 oxidation of, indirect calorimetry, 608

Protein-energy malnutrition

nasoenteric feeding in, bioenergetic and metabolic response, 900 thymulin (Zn-FTS) activity in, infection and, 305

Protein synthesis, in milk, isotope study, 49

Protein status, serum transferrin immunoassay, 37

Psyllium husk, dietary, plasma cholesterol, fecal steroid excretion and carbohydrate absorption and, 67

Puberty, growth and development during, zinc deficiency and (monkey), 1046

Pyridoxal phosphate, plasma, in submariners, 463

Pyridoxine status, in premenstrual syndrome, 636

Renin, response to sodium loading in people on low-Na diet, 502 Respiratory tract infection, growth of infant and, 134

Respiratory water vapor, isotope fractionation factors and measure-ment of ²H and ¹⁸O dilution spaces from, 1

Retinol

plasma level

in premenstrual syndrome, 636

zinc supplementation and, 1017

serum, in hemodialysis patient, 664

Retinol-binding protein, serum, in hemodialysis patient, 664

deficiency, in phrynoderma, 253 metabolism, 481

Saliva, isotope fractionation factors and measurement of ²H and ¹⁸O dilution spaces from, 1

Selenium, dietary intake and status in lactating Nepalese women and their infants, 729

Semistarvation, gastrointestinal and cardiac response to, 981 Serotonin synthesis, carbohydrate meals and, 433

Skeletal maturation, zinc deprivation and (monkey), 889

Sodium loading, blood pressure and, in people consuming low-Na diet, 502

Sodium restriction, blood pressure response to, in normotensive chil-

dren, 113 Spinach, calcium absorption from, 707

Starch

dietary

gelatinization, digestion rate and metabolic response to (rat), 1010 malabsorption, breath tests, 61

digestion, food particle size and, 675

Starch diet, effect on in vivo insulin action, thermogenesis and obesity (rat), 420

Starch meal, glucose and insulin responses to, 428

Steroids, fecal excretion, psyllium supplementation and, 67

Submariners, vitamin B₆ status and depression in, 463

Sucrase activity, after small bowel resection, pectin supplementation and (rat), 448

Sucrose diet, effect on insulin action, thermogenesis and obesity (rat), 420

Sulfate, inorganic, 128

Sulfoester, urinary, in low-birthweight infant, sulfur content of TPN and, 128

Surgical morbidity, malnutrition and, 352

Taurine, plasma and urinary levels, in vegetarians, 660

Test-weighing technique, human milk intake by infant, 815

Thermic effect of a meal, exercise training and, 793

Thermogenesis

diet-induced, in obese females before and after weight loss, 840 postprandial, exercise training and, 793

sucrose vs starch diet and (rat), 420

Thiamine status, in premenstrual syndrome, 636

Thromboxane B2, vitamin E supplementation and, 700

Thymulin (Zn-FTS) activity, in protein-energy malnutrition, infection and, 305

Thyroid function, in bulimia, 805

Thyroxine, flavin adenine dinucleotide and, 481

TOBEC (total body electrical conductivity), estimation of body composition, validation via direct carcass analysis (swine), 180

Tocopherols. See also Vitamin E

in adipose tissue, 33

in plasma, platelets, lymphocytes and erythrocytes, vitamin E status and, 470

serum, in premenstrual syndrome, 636

Transferrin, serum, enzyme immunoassay, 37

Triglycerides

in liquid diet, intestinal absorption of (rat), 207

serum

response to dietary fat, 825

after weight loss, 840

Tryptophan, plasma, carbohydrate meals and, 433

Ultraviolet phototherapy, plasma carotenoid levels and, 879

Undereating, metabolic response to, 932

Uremia

phosphate restriction in, 153

plasma copper and ceruloplasmin in, 896

Urine, isotope fractionation factors and measurement of ²H and ¹⁸O dilution spaces from, 1

Vegetarian

iron status in, 275

taurine levels in, 660

vitamin B₁₂ status, 89

Vitamin A

in adipose tissue, 33

analogs, in assessment of liver vitamin A stores (rat), 458

plasma level

ultraviolet phototherapy and, 879

zinc supplementation and, 1017

serum level, ethnic and racial differences in children, 247

status in liver, vitamin A analogs for assessment of (rat), 458

Vitamin A deficiency in children with cholestasis, treatment, 690

subclinical, impression cytology in detection of, 875

Vitamin B₆ status, in submariners, 463

Vitamin B₁₂ deficiency, methylmalonic aciduria in. 89

Vitamin D metabolism, effect of age and estrogens on (female rat), 694

Vitamin E. See also Tocopherols

in adipose tissue, 33

deficiency, in phrynoderma, 253

status, tocopherol levels of plasma, platelets, lymphocytes and eryth-

rocytes and, 470

supplementation

in insulin-dependent diabetes, platelet function and, 256

platelet function, arachidonic acid metabolism and plasma prosta-

cyclin and, 700

Vitamin K

deficiency, 475

dietary requirement, 475

nomenclature policy, 581

supplementation, in athletes, 186

ergogenic effects, 186, 192

toxic effects, 186

Weaning, infection during, growth of infant and, 134

Weight gain

in adolescent pregnancy, infant birthweight and, 948

in anorectic, motor activity and, 989

Weight loss (reduction)

caloric restriction and resistance weight training and, 19

changes in body fat distribution accompanying, 229 resting metabolic rate and diet-induced thermogenesis and, 840

Weight training. See under Exercise training
Wheat, particle size, plasma glucose and insulin response and, 675

Wheat bran, folate absorption and, 80

Work efficiency, caloric restriction and, 15

Xerophthalmia, impression cytology in, 875

Yogurt, lactase activity in, 454

Zinc

dietary intake and status, in lactating Nepalese women and their in-

fants, 729

intestinal absorption, folate supplementation and, 484

milk concentration, during lactation, 642

plasma level, in premenstrual syndrome, 636

supplementation

during nutritional rehabilitation, 1036

plasma vitamin A and, 1017

serum lipids and, 970

Zinc balance, bed rest and fluoride supplementation and, 509

Zinc deficiency (deprivation)

effects in early adolescence (monkey), 1046

high-density lipoprotein composition and (rat), 120

liver biopsy in assessment of zinc status (monkey), 1041 marginal, skeletal growth and mineralization (monkey), 889

Author Index Volume 47

Abraham SF, 636 Abraham ZD, 67 Abramovitch N, 013 Abu-Hamdan DK, 896 Acharya S, 722, 729, 735 Ahumada E, 413 Alfrey AC, 153 Alpers MP, 502 Alvarez F, 690 Ambrosio GB, 006 Amédée-Manesme O, 690 Amédée-Manesme O, 875 Anderson JW, 440 Andon MB, 722, 729, 735 Aoki TT, 239 Archibald EH, 220 Armstrong BK, 023 Aronson SM, 535 Ash SL, 694 Asp N-G, 015, 852

Badylak SF, 793 Baggio G, 006 **Baig MM, 848** Baker S, 280 Bales C, 336 Ballor DL, 19 Bammi A, 93 Barger-Lux MJ, 93 Baron J, 382 Bassily NS, 642 Baumgartner RN, 922 Baynes RD, 270 Becque MD, 19, 26 Behall KM, 428 Beilin LJ, 023 Bell L, 828 Benade AJS, 825 Benjamin L, 828 Berman PA, 186 Bernard O, 690 Bernier JJ, 400 Bezwoda WR, 270 Bibow K, 253 Bisaillon S, 298 Bierve KS, 030 Björck I, 015 Bjørneboe G-E Aa, 253 Black MR, 008 Bleiberg-Daniel F, 305 Bolton CH, 675 Bonanome A, 006 Boneh A, 013 Borland W, 42 Bothwell JE, 270

Bothwell TH, 270 Bouchard C, 551, 629 Bovet M, 400 Brand JC, 53 Bray GA, 393, 551 Bremer HJ, 005 Breskin MW, 275 Bridges SR, 440 Briefel RR, 320 Brisson G, 298 Brown DL, 180 Brown GE Jr. 333 Brown JC, 014 Brown MR, 001 Brown S, 139 Brunett E, 008 Bunout D. 235 Burgin CW, 848 Burri BJ, 458 Bustos P, 879 Butte NF, 815 Butterworth CE Jr, 484 Buzby GP, 351, 352, 357, 366, 382

Calaf R, 664 Calman KC, 42 Calvo MS, 018 Camaya Z, 108 Canary J, 428 Canary JJ, 470 Cano N, 664 Cappelloni M, 243 Carlsson L, 020 Cartry E, 256 Casper K, 900 Cassidy MM, 201 Castillo RO, 868 Castillo-Duran C, 710 Cavazzo M. 265 Cecchino JT, 660 Cerda JJ, 848 Chadud P, 265 Chait A, 515 Charoenlarp P, 280 Chen I, 201 Chesnut CH III, 515 Chessex P, 298 Chew I, 53 Chisholm DJ, 420 Christian JC, 113 Christiansen EN, 253 Chwang L-c, 496 Cimino JA, 481 Clandinin MT, 002

Clarke SD, 828

Clementi A, 243 Cloninger CR, 629 Clydesdale FM, 487 Cochran WJ, 1 Cohen JC, 825 Colditz GA, 406 Cole DEC, 128 Cole P, 484 Cole TJ, 134 Colette C, 256 Cook J, 280 Cook JD, 37, 102 Cooperman JM, 481 Cornwell PE, 484 Corrocher R. 006 Costanzo-Dufetel JD, 664 Costello E, 229 Coursin DB, 740 Couturier M, 690 Covell AM, 37 Crepaldi G, 006 Crosby LO, 357, 366 Cunnane S, 029 Cybulska B, 164

Dardenne M, 305 Dassenko SA, 102 Daugherty SA, 113 Del Toma E, 243 DeMaeyer EM, 280 Dempsey DT, 352 den Besten C, 840 Deurenberg P, 840 Deykin D, 700 Dhanamitta S, 280 DiPalma JA, 454 Dreon DM, 012 Dunbar D, 023 Durbec JP, 664 Dwyer J, 740

Efendić S, 852 Eisenberg JM, 366, 382 Ei Guindi M, 37 Elia M, 591, 608 Eliasson A-C, 015 Ellsworth N, 012 Elton RA, 139 Emmett PM, 675 English DR, 023 Etanchaud F, 61 Evard D, 61

Faigel D, 700 Fall M, 305 Falls RA, 922 Fawcett DM, 002 Fearon KCH, 42 Feldman EB, 534 Ferrari S. 006 Filler RM. 799 Fineberg NS, 113 Finkler SA, 382 Fisler JS, 393 Fitzgerald PI, 7 Fleming SE, 859 Florent C, 61 Florentin L. 007 Flourié B. 61 Forbes AL, 318 Forbes GB, 001 Forsum E, 003 Fort P, 028 Franchisseur C, 61, 400 Freeland-Graves J. 336 Frey-Hewitt B, 012 Fujii S, 239 Fujita Y, 502 Fulton M, 139 Fusco CL, 481

Galal O, 642 Gall D, 017 Garby L, 280 Garn SM, 836 Garrow JS, 553 Garza C, 810, 815 Gee JM, 014 George DT, 011 Gershwin ME, 021, 889 Gershwin MR, 022 Gimotty P, 649 Glick H, 382 Goldin BR, 694 Golub MS, 021, 022, 889 Graves J, 186 Gray DS, 393 Greene H, 89 Greger JL, 016, 475 Greiner L, 196 Griffiths HJL, 001 Grim CE, 113 Grundy SM, 007, 822 Guarini P, 006 Guo S, 922 Gupta M, 017 Gutcher GR, 016 Gwirtsman HE, 011

Haakenson CM, 366 Hachey DL, 810 Hagander B, 852 Hagerty MA, 653 Hallberg L, 280 Hallfrisch J, 163 Halliday D, 214 Hanck A, 690, 875 Harris MM, 010 Harrison GG, 642 Hartman GE, 868 Hartz SC, 524 Haschke F, 108 Hatch K, 484 Hawthorne V, 836 Hayes KC, 89 Heaney RP, 93, 262, 707 Heath H III, 018 Heaton KW, 675 Hebert JR, 025 Heil M, 108 Heilbrun LK, 312 Heim T. 799 Hendrickx AG, 022, 889 Hennekens CH, 406 Henson LC, 15 Hershey JC, 382 Heymsfield SB, 900, 911 Hillman AL, 382 Hinders SM, 262 Hirsch S, 235 Hobiger G, 108 Hodgdon JA, 7 Holm J, 015 Horst CH, 668 Horwitt MK, 033 Hotchkiss JH, 161 Howard L, 911 Howard MP, 722, 729, 735 Howie BJ, 653 Hunter GR, 789 Hurley LS, 021, 022, 889 Hurrell RF, 102 Hustead VA, 016 Hutchings J, 214 Hyner GC, 019

Irving CS, 49 Iturriaga H, 235

Jacob RA, 458, 524 Jacobs DO, 715 Jacobs P, 186 Jakubowski JA, 700 Jamner L, 683 Janssen M-C, 009 Jenkins AB, 420 Jenkins DJA, 027 Jenner DA, 023 Jerome NW, 642 Johnson CL, 247 Johnson IT, 014 Johnson MA, 96 Johnston FE, 196, 225, 229 Johnston JL, 002 Jones PJH, 799 Judd JT, 470

Kaewvichit R, 280 Kajiwara N, 502 Kalkwarf HJ, 879 Karra MV, 642 Kasiske BL, 157 Katan MB, 009 Katch V, 26 Katch VL, 19 Kaye WH, 011 Keagy PM, 80 Keane WF, 157 Keen CL, 021, 889 Keim NL, 180 Kelley RE, 207 Khaled MA, 789 Khanum S, 020 Kim C-i, 879 Kirksey A, 642 Kiyohara K. 805 Klahr S, 146 Klein PD, 1, 49, 815 Klish WJ, 1

Knowles JB, 884 Knox LS, 366 Kobayashi N, 805 Koishi H, 502 Koletzko B, 005, 029 Koo SI, 120 Kopple JD, 660 Koruda MJ, 448 Kraegen EW, 420 Krebs JM, 509 Kritchevsky D, 201 Kromhout D, 668 Kuczmarski R, 320 Kumai M, 239 Kwong LK, 868

Labadarios D, 186 Labastie-Coeyrehourcq J, 664 Lacombe P, 664 Laidlaw SA, 660 Lamparelli RD, 270 Landau H, 013 Lavizzo-Mourey R, 382 Le Moullac B, 305 LeBlanc AD, 509 Leblanc C, 629 Lee CC, 120 Lee LS, 1 Leek JC, 889 Lehmann J, 470 Lewis SA, 729 Licata A, 017 Lifshitz F, 028 Lightfoot FG, 201 Lintas C, 243 Lipkin EW, 515 Livesey G, 591, 608 Llaguno S, 265, 413 Lönnerdal B. 021 Looker AC, 247 Lopez-S A, 534 Lukaski HC, 032 Lundquist I, 015 Luzeau R. 875 Lyle BJ, 475 Lyle RM, 019 Lynch SR, 102 Lyons PM, 433

Macfarlane BJ, 270 MacPhail AP, 270 Mahajen SK, 896 Maire B, 305 Malphus EW, 49 Manzata E, 006 Marcelli M, 243 Marcus SN, 675 Mardones-Santander F, 413 Marks C, 26 Marks CR, 19 Marks L, 49 Martini MC, 57 Martini S, 006 Mayclin PL, 180 Mayet F, 270 McAnarney ER, 004 McCargar LJ, 002 McConnell W, 722 McCutcheon JJ, 789 McDonald FD, 896 McGandy RB, 524 McLaren DS, 031

McNeal GE, 366 McPhee MD, 128 Measel CP, 649 Medeiros DM, 008 Mehta T, 67 Melby CL, 019, 793 Mendeloff A, 554, 923 Mensink RP, 009 Merritt RJ, 911 Migdal SD, 896 Miller D, 89 Miller DR, 025 Miller JZ, 113 Miller MR, 023 Mira M, 636 Miyatani S, 502 Monnier LH, 256 Monsen ER, 275 Moorehead C, 26 Morton RE, 214 Moser PB, 722, 729, 735 Mourey MS, 690 Mrotzek M, 005 Mullen JL, 352, 357 Mummah-Schendel LL, 475 Muraca M. 006 Murphy CL, 96 Myburgh KH, 192

Nakagawa T, 239, 805 Na-Nakorn S, 280 Neu J, 649 Nilsson A, 253 Nilsson-Ehle P, 852 Nix D, 007 Noakes TD, 186, 192, 825 Nomura AMY, 312 Norman EJ, 89 Noto RA, 481 Nutcharas U, 280 Nylander W, 75

Oace SM, 80 Obarzanek E, 011 O'Donnell MP, 157 Okuda T, 502 Olivares M, 265 Oliver MF, 139 Opportuno A, 006 Otradovec CL, 524 Ott SM, 515

Page CP, 357, 366 Pagnan A, 006 Parent G, 305 Pares-Herbute N, 256 Parker RS, 33 Pascal S, 664 Patterson BW, 815 Pearman PL, 789 Pena M, 225, 229 Pencharz PB, 220 Pérusse L, 629 Peters H, 524 Peterson OL, 357, 366 Pfeiffer A, 400 Phinney SD, 828 Piccolo D, 006 Pierson RN, 225, 229 Pietschnig B, 108 Pineault M, 298 Piyasena C, 253

Pizarro F. 265, 413 Poehlman ET, 793 Pollitt E, 496 Poole DC, 15 Pootrakul P, 280 Prasad AS, 896 Prawatmuang P, 280 Preston T, 42 Purkerson ML, 146

Rambaud J-C, 61 Ramos RG Jr, 010 Randall DE, 024 Rao DD, 470 Read MS, 534 Reaven GM, 026 Recker RR, 93, 262, 707 Reddy S, 789 Redha R, 75 Reed D. 683 Reich T. 629 Reinhardt GF, 357, 366 Reiser S, 163 Rennie MJ, 214 Reynolds RD, 463, 722, 729, 735 Rice J, 629 Rikimaru T, 502 Robbins FL, 848 Rocchini A, 26 Roche AF, 922 **Rodin J, 683** Roe DA, 879 Rolandelli RH, 715 Rolanelli RH, 448 Rombeau J, 911 Rombeau JL, 448, 715 Romieu I, 406 Rongier M, 400 Rosner B, 406 Rosso P, 413 Rowland MGM, 134 Rowland SGJG, 134

Sadurskis A, 003 Sahyoun NR, 524 Said HM, 75 Salinas J, 413 Sampson L, 406 Sandretto AM, 175 Saris WHM, 668 Satchithanandam S, 201 Sauberlich HE, 484 Saul SH, 715 Savaiano DA, 57 Schanler RJ, 810 Scherstén B, 852 Schlichting CL, 463 Schneider D, 305 Schneider VS, 509 Schoeller DA, 799 Scholfield DJ, 428 Schuette SA, 884 Schuster E, 108 Segal KR, 7 Settle RG, 448, 715 Shah DV, 475 Shaheen SM, 859 Shane B, 80 Shenkin A, 42 Shultz TD, 653, 660

Russell RM, 524

Rye DL, 896

Silber GH, 810 Silprasert A, 280 Simko V, 207 Simmer K, 020 Sims LS, 329 Siragusa RJ, 848 Skikne BS, 37 Slatkavitz CA, 487 Slattery ML, 024 Smith EO'B, 1 Smith J. 799 Soemantri AG, 496 Sommer A, 875 Sondheimer JH, 896 Soong S-J, 484 Specker BL, 89 Speizer FE, 406 Stallings VA, 220 Stampfer MJ, 406, 700 Steffan I, 108 Stein TP, 196 Steinman L, 336 Stekel A, 265, 413 Stemmermann GN, 312 Stevens-Simon C, 004 Stewart PM, 636 Storlien LH, 420 Stroumza P, 664 Stunkard AJ, 225, 229 Styer DJ, 463 Sullivan TV, 836 Sunshine P, 868 Suttie JW, 475 Suwanaradd C, 280 Swyer PR, 799 Szostak WB, 164

Tamai H, 239, 805 Tamura T, 484 Tan S, 653 Tanphaichitr V, 280 Taylor SJ, 180 Tepper SA, 201 Terry RB, 012 Thanangkul O, 280 Therasse J, 690 Thomas MR, 49 Thompson RPH, 020 Thomson M. 139 Thorburn AW, 53 Tipton W, 75 Tisdale MJ, 42 Toe T, 280 Tremblay A, 629 Trerotola SO, 715 Trinidad TP, 102 Truswell AS, 53, 433 Tsai AC, 175 Tsuboi KK, 868

Uauy R, 710 Ugarte G, 235 Underwood BA, 247

Vahouny GV, 201 Vaillancourt R, 700 Valyasevi A, 280 Van Itallie TB, 7, 225, 229 Van Loan M, 7 Vandongen R, 023 Vaniyapong T, 280 Vansant G, 840 Vanura H, 108 Vatanavicharn S, 280 Vega GL, 822 Venhaus A, 162 Vial I, 413 Vidon N, 400 Vogler JB, 889

Wadden TA, 225, 229 Wade S, 305 Wager J, 003 Walford RL, 162 Walter T, 413 Wandel M, 253 Wang J, 225, 229
Watson WS, 336
Weaver CM, 707
Weight LM, 186, 192
Weinberger MH, 113
Weinsier RL, 789
Welke R, 008
Weststrate JA, 840
Whelan MF, 007
White WS, 879
Willett WC, 406
Williams PT, 012
Williford WO, 357, 366
Winthrop AL, 799
Wittepen JR, 875

Wolever TMS, 027 Wolman SL, 214 Wong WW, 1, 815 Wood DA, 139 Wood PD, 012 Worthington-Roberts BS, 275 Woteki CE, 247, 320 Wu-Wang C-Y, 649 Wytock DH, 454

Yetley EA, 247 Young EA, 010

Zlotkin SH, 128